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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,374	12/27/2000	Tomohito Shida	1466.1024	3846

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EXAMINER

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ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,374

Applicant(s)

SHIDA, TOMOHITO

Examiner

Stephen M Gravini

Art Unit

3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/12-27-01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3622

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of

whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450 U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete, and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). Together, the "technological arts" and "useful, concrete, and tangible result" judicial review standard, result in a comprehensive examination standard wherein the "technological arts" is one element and the "useful, concrete, and tangible result" is another complementary element.

This comprehensive examination standard was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the

court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these

Art Unit: 3622

analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. The Board of Patent Appeals and Interferences (BPAI) have recently acknowledged this dichotomy in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BPAI 2001).

Claim 6 is rejected under 35 U.S.C. 101 because the independently claimed invention does not recite a useful, concrete, and tangible result under *In re Alappat*, 31 USPQ2d 1545 (Fed. Cir. 1994) and *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 47 USPQ2d 1596 (Fed Cir. 1998) such that the claimed invention is within the technological arts under *In re Waldbaum* 173 USPQ 430 (CCPA 1972) wherein the phrase "technological arts" is synonymous with "useful arts" as it appears in Article I, Section 8 of the United States Constitution. In this claim, it is considered that a concrete and tangible result is not recited. Specifically, the recitation of issuing and recording recognition of points the subtracting from an accumulated total of points is considered not to produce a concrete result because a result cannot be assured or is not reproducible. The issuing and recording recognition of points the subtracting from an accumulated total of points recitation is considered an abstract concept that is non-enabling because those steps are not considered to be within the technological arts

Art Unit: 3622

since, the steps can be performed without structural interaction or mechanical intervention. Furthermore, under *In re Wamerdam*, 33 F.3d 1354; 31 USPQ2d 1754 (Fed. Cir. 1994), the issuing and recording recognition of points the subtracting from an accumulated total of points recitation is considered intangible because those steps are simply an abstract construct, such as a disembodied data structure and a method of making it, wherein those recitations involve more than a manipulation of an abstract idea and therefore is non-statutory under 35 USC 101. Because the independently claimed invention does not recite a useful, concrete, and tangible result, such that it is considered not within technological arts so that it uses technology in a non-trivial matter. Finally under *Ex parte Bowman*, 61 USPQ2d 1665 (Bd. Pat. App. & Inter. 2001) (unpublished but cited for analysis rather than precedent), in which an invention disclosed and claimed directed to a human merely making mental computations and manually plotting results on a paper chart is nothing more than an abstract idea which is not tied to any technological art and is not a useful art as contemplated by the United States Constitution. In this independently claimed invention, the steps of issuing and recording recognition of points the subtracting from an accumulated total of points are considered nothing more than an abstract idea since it is not tied to any technological art. However in order to consider those claims in light of the prior art, examiner will assume that those claims recite statutorily permitted subject matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3622

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Humble (US 4,949,256).

Claim 6 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fredregill et al. (US 5,923,016).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over examiner's personal experience with customer access point service system or method

Art Unit: 3622

as provided by major airline frequent flyer mile programs. The claimed terminal device, computer, code, and network are considered automated features of an old and well known manual operation, which will also be discussed *infra*. The claimed invention under examiner experience is based on the broadest reading of the claims under the *Graham* decision. Since at least 1990, examiner has experienced an airline frequent flyer program, which has performed the claimed system and method comprising:

- a point database for recording the number of points accumulated for the customer;
- means for issuing a recognition code for usable number of points or for a number of reserved points in accordance with a use or point use request with the usable number of points from a customer with optionally the number of reserve points from the customer;
- and

- means for recording the issued recognition code with the usable number of points or subtracting the number of reserved points from the accumulated number of points for the customer, so as to record the remaining number of points as a new accumulated number of points are part of examiner's personal experience. Examiner's personal experience also includes the claimed use management database including identifying and usability, request cancellation with invalidated code, and accumulated point view transmission. As a premise, the claimed points is considered to be functionally equivalent to frequent flyer miles corresponding to rewards offered by various airlines offering rewards for flying (also known as points). The frequent flyer miles are considered part of a user's reward account residing on an information type database. The claimed feature of a point database for recording the number of points accumulated

Art Unit: 3622

for the customer and means for issuing a recognition code for usable number of points or for a number of reserved points in accordance with a use or point use request with the usable number of points from a customer with optionally the number of reserve points from the customer is considered functionally equivalent to examiner-type consumer flying on an airline offering frequent flyer points and earning those points based on accumulated travel miles. The claimed means for recording the issued recognition code with the usable number of points or subtracting the number of reserved points from the accumulated number of points for the customer, so as to record the remaining number of points as a new accumulated number of points is considered functionally equivalent the examiner receiving frequent flyer miles or rewards earned for a specific itinerary wherein notification may be automatic such as an answering machine message or computer word processor generated postcard including points be subtracted for cancelled flights or non-earned frequent flyer miles. The claimed use management database including identifying and usability, request cancellation with invalidated code, and accumulated point view transmission are considered part of frequent flyer mile programs included in examiner's experience. The claimed invention contains automated features, such as terminal device, computer, code, and network which are obvious automated variations to the examiner's experience such that the examiner will use Official notice to obviate that claimed subject matter. The terminal device, computer, code, and network, as claimed, are interpreted to encompass automated electronic communications associated with electronic mail, Internet, and/or computer to server communications that have been performed by examiner-type

Art Unit: 3622

customer travelers using manual or semi-automated means incorporating manual means of the presently claimed automated invention. The claimed invention, recited by the applicant, is considered to have been provided to examiner by personal experience long before the filing of applicant's invention. Those terms are merely modern terms for the method and system used to carry out the functionality of the claimed invention.

More specifically the claimed terminal device, computer, code, and network are considered modern day terms in describing phone line or radio communications used examiner-type customers in crediting frequent flyer miles with respect to rewarding travelers. Examiner notes that it is old and well known to those skilled in the art of the claimed method and system that it would have been obvious to claim the invention as recited by the applicants, in order to overcome the explicit teachings of examiner's personal experience discussed supra. It would have been obvious to one skilled in the art to provide the automated claimed method and system since those features, particularly terminal device, computer, code, and network are merely automated features of a concept that is old and well known. Please see *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) in which the court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art. The motivation to combine applicants' claimed invention with the services offered by airline frequent flyer programs is to allow greater consumer targeting capabilities through electronic mediums, while transferring information, which clearly shows the obviousness of the claimed invention. One would also be motivated to combine the teachings of examiner's experience with

Art Unit: 3622

current computer and network innovations available such that much of examiner-type travelers duties can be carried out in a more efficient manner through computer technology than manually calling frequent flyer management programs to inquire of the status of frequent flyer miles. One would be further motivated to combine the points claimed with the airline frequent flyer programs such that one could earn frequent buyer points, preferred shopper, frequent flyer miles, or any other designated frequent purchaser reward plan designated for examiner-like consumers to gain rewards for patronizing a certain merchants, vendors, or retailers.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 09/693,919. Although the conflicting claims are not identical, they are not patentably distinct from each other because co-pending invention claiming

Art Unit: 3622

a reservation system is considered merely an obvious variation to the presently claimed points system.


This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Holda-Fleck (US 5,729,693) and Robinson et al. (US 5,734,838) are considered alternative references that anticipate the claimed invention. The non-patent literature references cited in this action teach airline frequent flyer mile programs that support the obviousness rejection made in this action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steve Gravini whose voice telephone number is (703) 308-7570 and electronic transmission / e-mail address is "steve.gravini@uspto.gov". Examiner can normally be contacted Monday through Friday from 6:00 a.m. to 3:30 p.m. **If applicants choose to send information by e-mail, please be aware that confidentiality of the electronically transmitted message cannot be assured.** Please see MPEP 502.02. Information may be sent to the Office by facsimile transmission. The facsimile transmission telephone numbers for TC-3600 are:

After-final	(703) 872-9327
Official	(703) 872-9306
Non-Official/Draft	(703) 872-9325


STEPHEN GRAVINI
PRIMARY EXAMINER

smg
March 3, 2004